

distinct embodiment, is requested. Applicant indicated in his election that these claims were examinable with those to the elected embodiment. The examiner, to justify lack of examination, commented that the description of the Figure 1 embodiment found on page 9, line 25 to page 11, line 17 does not describe fibers of a tenacity greater than 10 grams per denier. The description on page 6, lines 2-6, describes the addition of fibers having a higher tenacity to embodiments that utilize the normal strength liquid crystal fiber. While these additional fibers are not shown added to the Figure 1 embodiment, claims 7-10 are dependent upon and further restrict claims 5, 1 and 2. The examiner did not identify the construction described on page 6, lines 2-6 as an independent species to which an election was required. Because claims 7-10 are entitled to an examination in this or a divisional application, they must be examinable with one of the identified species or be considered a separate species. Since this addition of higher tenacity fibers could apply to different ones of the identified species, it would seem appropriate to examine claims that add those fiber to an identified species, with the claims to the identified species.

Applicant traverses the rejection of claims 1-3, 5, 6, 11, 12, 15-18, 25 and 26 as obvious over Bettcher '251 in view of Robins et al. No reason is stated to explain

why it would be obvious to substitute the Vectran mentioned in Robins et al. for the Kevlar in Bettcher; or why, if the Vectran of Robins et al. has a greater tenacity than 10 grams per denier, it would be obvious to substitute a Vectran M fiber of lower tenacity. There is nothing in Robins et al. or Bettcher that suggests substituting Vectran for the high strength aramid fibers used in the yarn construction disclosed in the cited Bettcher patent, or what results would be obtained; much less is there a suggestion for substituting normal strength Vectran M to obtain comparable results insofar as cut-resistance is concerned.

Robins et al. fail to disclose the use of liquid crystal polymer of a specified tenacity no greater than 10 grams per denier. No equivalency is established by the prior art that would suggest substituting normal strength liquid crystal polymer for high strength synthetic fiber to achieve comparable cut-resistance.

Fibers of different materials, which differ in tenacity, elongation, hardness and other characteristics coact differently with other elements in a composite yarn, depending not only on their inherent characteristics, but also on the construction of the composite yarn. The cut-resistance of a yarn when compared to another will in many cases be different when the comprising fibers are combined with other elements in forming a com-

posite yarn, e.g., with a wire and fiber core, even though the composite yarns are of the same construction. When the composite constructions are different, the results are even less predictable.

Applicant submits that any meaningful teaching from the disclosure of Robins et al. (and without regard to the accuracy or truth of the teaching) relates only to the use of a strand of material knitted onto a core to provide a yarn for use to construct a cut-resistant body-protective piece of apparel. Absent that construction, there is no indication in the Robins et al. patent that there would be satisfactory cut-resistance from the use any of the materials other than aramid, which is described as prior art previously used for cut-resistant composite yarns. The Robins et al. disclosure offers no predictability for the cut-resistant performance of the materials disclosed therein, if used in the constructions claimed in the present application rather than in the Robins et al. constructions. In fact, the only mention of Vectran is in claims limited to a yarn having a monofilament covering strand, and Robins et al. attributes the asserted greater cut-resistance to the higher percentage of steel used in their construction, compared to steel used as a core or wrapped around core yarns.

The examiner's rejection is based only on an improper hindsight reconstruction based on applicant's own disclosure or on an obvious-to-try rationale. As the examiner is aware, whether or not it would be obvious to try a substitution of Vectran M for Kevlar in the Bettcher construction is not the issue, because obvious to try is not a legitimate test of patentability. See, e.g., In re Geiger, 815 F.2d 686, 688; 2 USPQ2d 1276, 1278 (Fed.Cir.1987).

The fact that Vectran M may be less expensive than high strength Vectran, which was suggested by the examiner as a reason for substituting it for the high strength Vectran if that is what is referred to in Robins et al., does not suggest that the lower strength Vectran would be substitutable for Kevlar, which is a high tenacity material, in the Bettcher disclosure.


Claim 35 has been amended to avoid dependency on any multiple dependent claim. Examination of claims 35 and 36 is requested.

The informalities in the drawings are noted and will be corrected within the required time period.

Reconsideration and allowance of the claims in view of the above amendment and remarks are respectfully requested.

Respectfully submitted,

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